



Patent Claims

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14. A method of genotyping plants of the *Triticum aestivum* species and the tribe Triticeae at a microsatellite locus, the method comprising

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a) amplifying chromosomal DNA with oligonucleotide primer pairs specifically hybridizing to said locus of a region of said chromosomal DNA, wherein said region of the DNA comprises a repeated dinucleotide motif comprising at least one of the following selected from the group consisting of (GA:CT)_n, (GT:CA)_n, (AT:TA)_n, to obtain an amplification product,

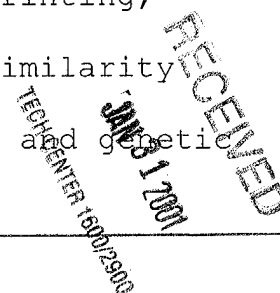
b) size fractionating the amplification product to provide a measure of the said motif of the chromosomal DNA between said primer pairs,

wherein the size of the amplification product is polymorphic for said locus and provides a genotype for said plants.

15. The method of claim 14, wherein the primer pairs are selected from at least one of the pairs SEQ ID NO. x and SEQ ID NO. x+1, where x= odd numbers from 1 through 465.

16. The method of claim 14, wherein $x = 1$ through 19.

17. The method of claim 14, further comprising the step of using the resulting genotype for a further step chosen from the group consisting of DNA fingerprinting, species identification, relationship studies, similarity studies, characterization of cytological lines, and genetic mapping.

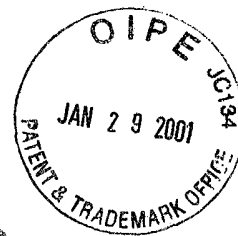


Wherefore, allowance of the claims is earnestly solicited.

Respectfully submitted,

B. S.

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